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# Imaging

## TRANSCATHETER CLOSURE OF SECUNDUM ATRIAL SEPTAL DEFECT EXCLUSIVELY GUIDED WITH TRANSTHORACIC ECHOCARDIOGRAPHY

Poster Contributions
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**Background:** Currently, the standard procedure for transcutaneous closure of secundum type atrial septal defect(ASD) includes using transesophageal echocardiography (TEE) or intracardiac echocardiography(ICE) to guide the procedure. Very few reports was noted reguarding the role of transthoracic echocardiography (TTE) as a guiding tool for this purpose. We have employed TTE as the sole guiding tool during transcatheter closure of ASD since its introduction into clinical practice.

**Methods:** Between Jan., 2002 and Dec., 2011, a total of 496 patients,with mean age of 12.5+11.6 years, underwent transcutaneous closure of ASD and was followed for more than 1(5.3+3.6) year. Of them, 285 patients had their ASD closed and followed for more than 5 ( 7.6+ 2.3) years. The initial 32 cases underwent the procedure with both on-site TEE & TTE monitoring. Since then a prospective policy was made to use only on-site TTE to guide the procedure.

**Results:** Of the overall 464 patients underwent ASD closure with exclusively TTE guidance and followed more than 1 years, 448(96.6%) patients had their defects closed successfully. Of them, 108 had 2D TTE only (group 1) and 356 had real-time three-dimensional (RT3D) TTE plus 2D TTE (group 2). Successful device closure of the defect was achieved in 103 ( 95.4 %) patients of group 1 and 345 ( 96.9 %)patients of group 2. There is no significant late complication, such as arrhythmia or device dislocation in either group.

**Conclusion:** Our experience showed that transcutaneous closure of secundum type ASD monitored and guided by TTE (preferably RT3D TTE with more immediate spatial information) is feasible with satisfactory long-term result result.